Utilities & Infrastructure

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Overview

Due to the Delta's location between major population areas, its unique resources, especially water and natural gas, and its flat terrain and general lack of development, the Delta has high value as a utility and transportation corridor.

Utilities located in the Delta include: radio, cellular telephone and television transmission towers; electrical transmission lines including Pacific Gas and Electric (PG&E), Sacramento Municipal Utility District, and Western Area Power Administration lines; natural gas pipelines, serving local gas fields and regional pipelines; petroleum transportation pipelines; and water transportation canals and pipelines transporting water from the Delta to regional users and to the State and federal water projects.

The regional electrical transmission lines carry power within California as well as between regions of the western United States. More than 500 miles of transmission lines and more than 60 substations lie within the Delta boundaries. Several electrical peaking plants surrounding the Delta depend on these transmission lines. Within the larger Delta-Suisun Marsh area are approximately 240 operation gas wells. Natural gas pipelines serve local gas fields and regional pipelines. PG&E‘s underground natural gas storage area under McDonald Island provides up to one-third of the peak natural gas supply for its service area. Pipelines carry gasoline and aviation fuel across the Delta from Bay Area refineries to depots in Sacramento and Stockton for distribution to Northern California and Nevada. They provide approximately 50 percent of the transportation fuel used in that region. The Mokelumne Aqueduct, consisting of three pipelines, is the main municipal water conveyance facility for 1.3 million people in the East Bay Municipal Utility District. The aqueduct crosses five Delta islands/tracts (Orwood Tract, Woodward Island, Jones Tract, Roberts Island, and Sargent-Barnhart Tract) protected by levees.

Local governments regulate the utilities that serve Delta residents and visitors including potable water, sewage disposal, and solid waste disposal. Most potable water is obtained from groundwater through local wells. Most wastewater from homes and businesses is treated in on-site septic tanks. Some of the larger communities and developments have self-contained wastewater treatment facilities. Communities outside the Primary Zone currently are anticipated to continue to release treated wastewater into Delta waterways (though wastewater discharge requirements issued by the regional water board), onto constructed wetlands, or onto agricultural lands. Most solid waste generated in the Delta is disposed of at facilities outside the area.

Transportation systems traversing around and through the Delta include several railroads and freeways, state highways, and county roads. Three interstate freeways (Interstate 5, Interstate 80, and Interstate 580) provide major transportation and trucking routes that pass the periphery of the Delta. The three major state highways in the Delta (State Routes 4, 12, and 160) are typically two lanes, sometimes built on top of levees. Originally meant for lower traffic volumes at moderate speeds, the state highways are now heavily used for regional trucking, recreational access, and commuting. More than 50 bridges, including approximately 30 drawbridges, span the navigable channels of the Delta.

Regional rail traffic between the Bay Area and the Central Valley passes through the Delta. The Amtrak San Joaquin route from Bakersfield to Sacramento/Oakland, which crosses through the Delta, had nearly 800,000 riders in 2006. In addition, companies such as the Sierra Northern Railway use existing short-line tracks for inter-regional freight and passenger services.

Two major ports lie north and east of the Primary Zone, the Ports of Sacramento and Stockton, respectively. The Stockton and Sacramento Deep Water Ship channels traversing the Delta were constructed in 1933 and 1963, respectively. The Stockton channel is 35 feet deep and can handle 55,000-ton class vessels with full loads. More than 300 ships and barges used the channel in 2005. The Sacramento ship channel is 30 feet deep with plans underway to increase its depth to 35 feet. Both ports are likely to expand in the future, which would result in an increase in ship and barge traffic through the Delta. Several million tons of diversified products are shipped through the Delta each year.

Airports in the Primary Zone of the Delta primarily serve individual land-owners, agriculture-serving businesses and small air operations.

Goals

Ensure that the construction of new utility and infrastructure facilities is appropriate and the impacts of such new construction on the integrity of levees, wildlife, recreation, agriculture and Delta communities are avoided, minimized and mitigated.

Policies

P-1.

Impacts associated with construction of transmission lines and utilities can be mitigated by locating new construction in existing utility or transportation corridors, or along property lines, and by minimizing construction impacts. Before new transmission lines are constructed, the utility should determine if an existing line has available capacity. To minimize impacts on agricultural practices, utility lines shall follow edges of fields. Pipelines in utility corridors or existing rights-of-way shall be buried to avoid adverse impacts to terrestrial wildlife. Pipelines crossing agricultural areas shall be buried deep enough to avoid conflicts with normal agricultural or construction activities. Utilities shall be designed and constructed to minimize any detrimental effect on levee integrity or maintenance, agricultural uses and wildlife within the Delta. Utilities shall consult with communities early in the planning process for the purpose of creating an appropriate buffer from residences, schools, churches, public facilities and inhabited marinas.

P-2.

Ensure that new houses built in the Delta agricultural areas but outside of the Delta's unincorporated towns continue to be served by independent potable water and wastewater treatment facilities and/or septic systems. Agricultural uses that require wastewater treatment shall provide adequate infrastructure improvements or pay to expand existing facilities, and not overburden the existing limited community resources. The appropriate governing body shall ensure that new or expanded construction of agriculturally-oriented wastewater disposal systems

meet the appropriate standards/conditions and are not residentially growth inducing. Independent treatment facilities should be monitored to ensure no cumulative adverse impact to groundwater supplies.

P-3.
Ensure that new municipal sewage treatment facilities (including storage ponds) that support development or business outside of the Delta Primary Zone are not located within the Delta Primary Zone. The Rio Vista project, as described in the adopted Final Environmental Impact Report for such project, and the Ironhouse Sanitary District use of Jersey Island for disposal of treated wastewater and biosolids are exempt from this policy.

P-4.
Encourage recycling programs for metals, glass, paper, cardboard, and organic materials in order to minimize waste generation. Recycling facilities for these materials should be suitably located to serve Delta residents, visitors, and businesses. High groundwater tables and subsiding soil make the Delta an inappropriate location for solid waste disposal.

P-5.
Maintain roads within the Delta to serve the existing agricultural uses and supporting commercial uses, recreational users, and Delta residents. Promote the maintenance and enhancement of major thoroughfares already used as cross-Delta corridors.

P-6.
Allow air transportation in the Delta to continue to serve Delta residents and agriculture-related businesses. Due to subsidence, transmission lines, high winds, fog, and high raptor and waterfowl use, the Primary Zone is not an appropriate location for new or expanded general aviation airports.

P-7.
Encourage the provision of infrastructure for new water, recreational, and scientific research facilities.